

Model		MARS48 16 V 16 - 100	MARS 48 2 4 V 24 -1 5 0	MARS48 36V30-150
Rated Power		1600VA / 1600W	2400VA / 2400W	3600VA / 3600W
Peak Power		32 00W	4800W	6 0 00W
Machine Architecture		Bidirectional AC/DC Inverter/Boost/Buck MPPT		
Input and output phases		Single-phase input/ Single-phase output		
Working Mode		<p>Automatic charging: Automatically charge the battery when connected to the mains or photovoltaic power.</p> <p>Automatic inverter discharge: Manually start battery inverter AC output , automatic inverter grid connection</p> <p>Uninterruptible power supply (UPS): AC direct supply, automatic switching to inverter power supply when AC power is interrupted (<10ms)</p>		
Output	Output lines	Single-phase two-wire (L, N) + protection ground		
	Rated voltage	220 / 230 / 240 VAC		
	Output voltage accuracy	± 1 %		
	Output frequency	50/60Hz±0.1% (adjustable, automatically detects mains frequency)		
	Output waveform	Pure sine wave		
	Output distortion (THDV%)	<2% (linear load)		
		<7% (non-linear load)		
Overload capacity	5 minutes @10 2 %~12 5 % rated load 10s@12 5 %~150% rated load 2 S@>150% rated load			
efficiency	Mains charging (AC->battery)	93 % ;	Minimum 92% ;	Maximum > 92% ;
	Battery discharge (battery -> AC)	92 % ;	Minimum 91% ;	Maximum > 92 % ;
	MPPT	99.9%		
	PV charging efficiency	96%		
No-load loss		< 2 0W (with output and no load)	< 30W	≤ 20W (sleep, no output); ≤40W (with output and no load)
Shutdown leakage current		< 10 0 uA		
Mains input	Input lines	Single-phase two-wire (L, N) + protection ground		
	Input voltage	Neutral phase voltage: 184Vac ~ 2 53 V ac		

	range			
	Input frequency range	48 Hz - 51 Hz	48 Hz - 51 Hz	4 7Hz±0.3Hz - 5 5Hz±0.3Hz
	Input power factor	≥0.9 5		
Battery and charger	Battery rated voltage	48V	48V	51.2 V
	Battery Type	16 lithium iron phosphate batteries, 14 ternary batteries	Lithium battery/lead acid	Ternary, lithium iron phosphate
	Charging control method	Pre-charge, Constant current, Constant voltage, Equalization charge, Float charge, Shutdown		
	Charging termination voltage	56.8V / Continuously adjustable		
	Discharge cut-off voltage	44V / continuously adjustable		
	Charging Current	Maximum 25 A, digitally adjustable, default 10 A	Maximum 50 A, digitally adjustable, default 20A	Maximum 50 A, digitally adjustable, default 20A
	Precharge current	1.5A		
	Charging control instructions	Charge termination voltage, charge current, charge enable, charge fullness judgment, battery fault, battery temperature, charge mode switching		
Protection function		Overload protection, over temperature protection, input overvoltage protection, input undervoltage protection, overcharge protection, over discharge protection		
Solar Charging	PV maximum input power	800W * 2	16 00W	16 00W
	PV maximum open circuit voltage	100 VDC	1 5 0VDC	1 5 0VDC
	PV operating voltage range	1 0 ~ 10 0VDC	25 ~ 1 45 VDC	10 ~ 1 45 VDC
	PV input current	PV connected to MPPT working mode, 16 Amax	PV connected to MPPT working mode, 25 Amax	PV connected to MPPT working mode, 25 Amax
	PV charging current	0-16A * 2	0-30 A	0-30 A
Grid connection	Optional functions	The grid-connected power can be set from 0 to 1600w (the default grid-connected power is less than 800w, and it has	Grid-connected power can be set from 0 to 2400w (default 800w)	Grid-connected power can be set from 0 to 3600w (default 800w)

		an anti-backflow function and can be used for self-generation)		
Parallel	Optional functions	/	The number of parallel machines is 2~6, the default is 2	
Human Machine Interface	APP (master control implementation)	Mobile APP manages and controls grid connection time and power		
	Communication interface	Power on/off command interface, RS485, CAN communication		
	LCD display (option)	Display input and output voltage, frequency, load percentage, PV voltage and current, working mode, and machine status		
Environmental parameters	Operating temperature range	-20 ~ 55 °C	-10~ 55 °C	
	Operating humidity range	0-98% (no condensation)	0-98% (no condensation)	
	Heat dissipation cooling method	Natural cooling	Forced air cooling	
	Recommended fan specifications	/	80*25mm 12V*0.25A 3500RPM	
Structural shape	size	380mm * 260mm * 90mm	290mm *200mm * 65mm	290mm *200mm * 65mm
	Weight (kg)	(IP65)7.5kg	(IP20) 2.7 kg	(IP20) 2.7 kg
Insulation isolation withstand voltage		Insulation withstand voltage between battery and AC terminal: 4242 VDC Leakage current <1mA	Insulation withstand voltage between battery and AC terminal: 4242 VDC Leakage current <1mA	Insulation withstand voltage between battery and AC terminal: 4242 VDC Leakage current ≤10mA
Safety regulations and electromagnetic compatibility standards		IEC60950 /UL60950/GB4943 VDE4105		